

**ABSTRACT**

Provided are an isolated peptide having the amino acid sequence DLMGYIPAV (SEQ ID NO: 1), an isolated HCV core polypeptide comprising an L→ A substitution at amino acid position 139, an isolated HCV core polypeptide having the amino acid  
5 sequence of SEQ ID NO: 2, and a fragment of an HCV core polypeptide having fewer amino acids than the entire HCV core polypeptide and comprising the amino acid sequence of SEQ ID NO:1. Also provided are nucleic acids which encode the peptides and polypeptides of this invention, vectors comprising the nucleic acids of this invention and cells comprising the vectors and nucleic acids of this invention. Further  
10 provided are methods of producing an immune response in a subject and/or treating or preventing HCV infection in a subject, comprising administering to the subject, or to a cell of the subject, any of the compositions of this invention.